REMARKS

According to the foregoing, claims 1-7 are amended; thus, the pending claims 1-7 remain for reconsideration, which is respectfully requested.

No new matter has been added and accordingly, entry and approval of the amended claims 1- 7 is respectfully requested.

STATUS OF THE CLAIMS:

Claims 1-7 are pending.

Claims 1-7 are rejected.

ITEM 4: 35 U.S.C. § 101 CLAIM REJECTIONS:

Claims 4-7 are rejected under 35 U.S.C. §101 because, allegedly, "the claimed invention is directed to non-statutory subject matter." In accordance with the foregoing, claims 4-7 are amended taking into consideration the Examiner's comments. Withdrawal of the claim rejections is respectfully requested.

ITEM 5: 35 U.S.C. § 102(b) CLAIM REJECTIONS:

Claims 1-7 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Unigraphics Solutions™ ("User's Guide Getting Started with SOLID EDGE™ Ver. 8.0"), hereinafter referred to as "Unigraphics."

This rejection is respectfully traversed.

The present invention relates to a method, apparatus and computer-readable medium, for reflecting a modified shape in an assembly state drawing by loading a single component model without loading the assembly model (a partial reprojection technique).

The technique, as recited in claim 1, for example, comprises, "specifying two-dimensional elements to be updated when updating the shape in the part model, so as to decide a projecting direction of the part model from the line of sight of each part included in the part information and to decide a generating position of the two-dimensional elements from the position of the part included in the part information...." In other words, the technique updates a projection drawing in a state in which only a part of models in the projection drawing is loaded in a drawing generated by projecting a three-dimensional model. One benefit of the claimed embodiment is that the CAD system that includes the projection process of the present invention can reflect a shape of a component model while maintaining a position and a posture in which the component

is projected when the shape of a part in the projection drawing is updated. Thus, it is possible to perform a reprojection of the entire projection drawing and a partial reprojection.

The method for generating and updating projection drawings described in Unigraphics discusses only a conventional technique, and cannot specify "two-dimensional elements to be updated when updating the shape in the part model, so as to decide a projecting direction of the part model from the line of sight of each part included in the part information and to decide a generating position of the two-dimensional elements from the position of the part included in the part information," as recited, for example, in claim 1. In other words, Unigraphics cannot update a projection drawing from a state where the projection drawing is generated in an assembly drawing state and where only a part of a model in the assembly is loaded.

Unigraphics at page 274 discloses: "Solid Edge allows you to document multiple parts or assemblies in a single draft document." In other words, Unigraphics discloses that a plurality of models can be projected for one drawing; however, Unigraphics fails to disclose, either expressly or inherently, the claimed "grouping elements projected from the assembly model for each part," or, in other words, that the projected two-dimensional geometric elements are grouped for each part, or unit of component.

Unigraphics at page 296 discloses: "Annotations can be associative or non-associative. An associative annotation moves when the element it is connected to moves." In other words, Unigraphics discusses that annotations include ones with, and ones without, an associative relation, and that an annotation with an associative relation moves along with an element to which it is connected. Furthermore, in page 296, Unigraphics discusses projection methods of the first angle projection and the third angle projection; however, Unigraphics fails to disclose, either expressly or inherently, the claimed "adding attributions of each part information to the two-dimensional projection, the attributions including a line of sight and a position of the part," as recited in claim 1. In other words, *prima facie* anticipation of claim 1 cannot be based upon Unigraphics, because Unigraphics fails to disclose that a projection drawing has a line of sight and position information for each component.

Unigraphics at page 271 discloses, "You should create one drawing view on each sheet for all the views that have the same scale." In other words, Unigraphics discusses that dimensions and constraint conditions are added to a geometric shape in a two-dimensional drawing for defining a relationship with a three-dimensional drawing; however, Unigraphics fails to disclose, either expressly or inherently, the claimed "adding attributions of each part information to the two-dimensional projection, the attributions including a line of sight and a

6

position of the part." In other words, Unigraphics does not disclose a method in which a line of sight for a loaded component and a position thereof in a projection drawing are defined from information for each component in the projection drawing.

Unigraphics at page 282-283 discloses a method for projecting or updating dimension lines and annotations to a drawing when the dimension lines and annotations are added to the drawing's three-dimensional model. Furthermore, on page 282, there is a description about type control of the annotations and the dimension lines to be projected. However, Unigraphics fails to disclose, either expressly or inherently, the claimed "adding attributions of projection information to the two-dimensional projection, the attributions including information about a loaded model and information about a model to be projected; and deciding whether the entire reprojection is performed from the assembly model or a partial reprojection is performed for a part in accordance with the projection information, wherein if the partial reprojection is performed, the attributions of the part information and the projection information are not changed but only the shape is changed," as recited in claim 2. In other words, Unigraphcs fails to disclose a method in which when a single component is loaded and edited with respect to a projection drawing in an assembly state generated from an assembly, it is determined whether the assembly is loaded in internal processing for the entire reprojection or only a shape of the single loaded component is reflected.

As to a block diagram showing the system according to the present invention, a system for generating a projection drawing on a two-dimensional drawing from a three-dimensional model and for updating the drawing in accordance with a modification of a shape of the three-dimensional model may have the same block diagram as the present invention, in general. However, the system according to the present invention includes "an associative analysis processing portion analyzing information of the two-dimensional projection to be reprojected; a drawing processing portion deciding three-dimensional elements to be projected in association with the modeling kernel from three-dimensional shape data and a projection condition; a drawing data generation processing portion generating the decided three-dimensional elements as two-dimensional elements on the drawing; and an associative setting processing portion grouping the generated two-dimensional elements for each part and setting a relationship with conditions and the models," as recited in claim 3. In other words, the claimed embodiment includes an associative analysis processing portion and an associative setting processing portion that have a control for loading and reprojecting a model having a structure that is different from that when the projection drawing was generated (usually, a reprojction cannot be performed unless a model when the projection drawing was generated is loaded).

Claims 4-7 patentably distinguish over the cited prior art for similar reasons as claims 1, 2 and 3. As described above, the present invention is for performing a reprojection of a part of a projection drawing in an assembly state by loading a structure of a model that is different from that when the projection drawing is generated, which is different from the technique described in the cited Unigraphics reference.

CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot and, further, that all pending claims patentably distinguish over the prior art. There being no further outstanding objections or rejections, the application is submitted as being in condition for allowance, which action is earnestly solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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